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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,306	07/10/2003	Branden Clark Bickley	016295.1414(DC-02837)	3591
23640	7590	09/08/2004	EXAMINER	
BAKER BOTTS, LLP			FRANK, ELLIOT L	
910 LOUISIANA			ART UNIT	
HOUSTON, TX 77002-4995			PAPER NUMBER	

2125

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/617,306	<b>Applicant(s)</b> BICKLEY ET AL.	
	<b>Examiner</b> Elliot L Frank	<b>Art Unit</b> 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-23 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>multiple IDS</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. The instant application is a continuation of application 09/800,046 now USPN 6,615,092 B2.
2. The specification has been checked against the parent, and it appears that problems cited in the parent have now been corrected in the instant application.

### *Double Patenting*

3. Claim 2 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of parent application 09/800,046.

Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

The claims of patent/application 09/800,046 contain every element of claim 2 of the instant application and as such anticipates claim 2 of the instant application. *In re Goodman*, 29 USPQ2d 2010 (CAFC 1993)

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. *In re Longi*, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); *In re Berg*, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus)." *ELI LILLY AND COMPANY v BARR LABORATORIES, INC.*, United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

***Specification***

4. The abstract of the disclosure is objected to because it contains legal phraseology.

The abstract should be a 50-150 word narrative description of the invention omitting the purported merits. Correction is required. See MPEP § 608.01(b).

5. While no substantial errors have been cited, the applicant is encouraged to thoroughly review the specification and correct any informality encountered.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-11,13-15 and 18-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkins et al. (USPN 6,507,765 B1) in view of Lin et al. (USPN 5,880,960).

The limitations of claim 1, and the applicable citations in Hopkins et al., are as follows:

1. A method of managing resources in a build-to-order manufacturing facility, the method comprising:

automatically maintaining a work-in-process (WIP) profile for an area in a manufacturing facility (column 12, 16-41), based on scans of each product unit entering the area and each product unit leaving the area (column 5, lines 46-58);

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determining a total amount of product in the area by aggregating information on individual product units (column 12, lines 16-41);

automatically updating a display device in a control center for the manufacturing facility to depict the total amount of product in the area in substantially real time, based on the WIP profile (column 12, line 42-column 13, line 2);

after updating the display device in the control center to depict the total amount of product in the area, receiving user input that specifies a desired reallocation of resources for the manufacturing facility;

in response to receiving the user input, automatically communicating with the area in the manufacturing facility to implement the desired reallocation of resources (column 4, 59-column 5, line 20 wherein the manufacturing line is supervised by a line controller);

monitoring pieces of equipment in the manufacturing facility for equipment errors (column 8, lines 36-53);

updating the display device in the control center to depict graphical illustrations of the pieces of equipment (column 12, line 42-column 13, line 2);

in response to detecting an equipment error, automatically updating the display device in the control center to depict the detected error in substantially real time (column 12, line 42-column 13, line 2);

after updating the display device in the control center to depict the detected error, receiving user input that specifies a second reallocation of resources for the manufacturing facility;

and in response to receiving the user input, automatically communicating with one or more areas in the manufacturing facility to implement the second reallocation of resources (column 4, 59-column 5, line 20 wherein the manufacturing line is supervised by a line controller).

While Hopkins et al. clearly reads on the monitoring and displaying aspects of the instant invention, it only recites a means of control (the line controller) for controlling manufacturing behavior. It does not specifically recite a user inputting data that is communicated to various areas in order to balance factory resources.

Lin et al., analogous to Hopkins in that both references concern electronics manufacturing control (Lin et al., column 1, lines 6-12), makes obvious the requirements of claim 1 wherein it describes a typical process for balancing a factory floor at column 1, lines 14-62. In this process, supervisors actively communicate with the shop floor in order to balance the available resources in order to maximize product throughput.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the teaching of Hopkins et al. in the manner of Lin et al. to have maximized production throughput by reducing WIP (Lin et al., column 1, lines 14-62).

Claims 2 and 3 combined have the identical limitations as claim 1, and therefore are obvious in view of the previous citations in the combined references.

Claim 4, 18 and 23 are broader versions of claim 1, and therefore are obvious in view of the same citations in the combined references.

Claims 5-11, 13,14 and 19-22 are read in Hopkins et al. as follows:

5. The method of claim 4, further comprising: determining total amount of product in at least one of the areas in the manufacturing facility by aggregating information on individual product units in one or more WIP profiles (column 12, lines 16-41).

6. The method of claim 4, further comprising: automatically updating the WIP profile for at least one of the areas in the manufacturing facility, based on scans of product units entering the area and product units leaving the area, such that the dynamic attributes comprise an attribute pertaining to amount of product in the area (column 5, lines 46-58).

7. The method of claim 4, wherein: the dynamic attributes comprise an attribute pertaining to amount of product in a specific area of the manufacturing facility; and the operation of updating the user interface comprises updating the user interface to depict the amount of product in the specific area of the manufacturing facility in substantially real time (column 12, lines 16-41).

8. The method of claim 4, further comprising: detecting an error associated with a resource in the manufacturing facility; updating the user interface to depict the detected error; and reallocating resources based on user input received after the detected error has been depicted (column 12, line 42-column 13, line 2).

9. The method of claim 8, wherein the operation of detecting an error comprises detecting an equipment error (column 8, lines 36-53).

10. The method of claim 9, wherein the operation of detecting an error comprises detecting a process error (column 8, lines 36-53).

11. The method of claim 4, wherein the operation of automatically updating the user interface in the control center comprises: displaying graphical illustrations of pieces of equipment in the manufacturing facility; and depicting operational status information for the pieces of equipment in substantially real time (column 12, line 16-column 13, line 2).

13. The method of claim 4, wherein the operation of automatically communicating with one or more of the different areas in the manufacturing facility to implement the desired reallocation of resources comprises: automatically communicating with one or more of a build facility, a packaging facility, and a shipping facility in the manufacturing facility (column 4, line 14-30, wherein a build facility is discussed).

14. The method of claim 4, wherein the operation of automatically updating the user interface comprises: displaying information that pertains to a bottleneck restricting completion and shipment of an order (figure 17).

Claims 19-22 require display screens containing various combinations of manufacturing information. Hopkins anticipates this requirement at column 12, lines 16-41 and column 8, lines 1-15, wherein the reference teaches various examples of display screens and that customized GUIs may be constructed depending on the needs of the user the ability of the hardware implementing the displays.

Claim 15 is read in Lin et al. as follows:

15. The method of claim 14, wherein the operation of automatically communicating with one or more of the different areas in the manufacturing facility to implement the desired reallocation of resources comprises: dynamically allocating resources to relieve the bottleneck (column 1, lines 14-62).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hopkins et al. (USPN 6,507,765 B1) in view of Lin et al. (USPN 5,880,960) as applied to claim 4 above, and further in view of Beatty (USPN 6,523,045 B1).

Claim 12 depends from claim 4. Claim 4 is obvious in view of the Hopkins et al. and Lin et al. combination.

The previously combined references do not make obvious the additional requirements of claim 12 as follows:

12. The method of claim 4, wherein the operation of monitoring WIP profiles comprises: monitoring respective WIP profiles for a build facility, a packaging facility, and a shipping facility in the manufacturing facility.

Beatty, analogous to the previously combined references in that they all are concerned with manufacturing monitoring and control (Beatty, column 1, lines 8-14), reads on the additional requirements of claim 12 at column 2, line 44-column 3, line 44, wherein it recites various areas monitored by a shop floor control system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the elements of Beatty into the previously combined references to have created a system which allows management to control

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a factory by tracking inventory, production and labor hours (Beatty, column 1, lines 16-23).

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

***Allowable Subject Matter***

10. Claims 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Specifically, claims 16 and 17 discuss monitoring a "complete percentage" for an order based on the WIP profile and dynamically assigning a carrier to a dock based on the completion percentage. Searches focused on these aspects of the invention did not reveal additional references that anticipated or made obvious these limitations in conjunction with the claims from which they depend.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 2002/0103709 A1 – Anthony et al. – Manufacturing control

US 2002/0107600 A1 – Crampton et al. – Manufacturing control

USPN 5,241,482 A – Iida et al. – Manufacturing control

USPN 5,398,336 A – Tantry et al. – Manufacturing control

USPN 5,748,478 A – Pan et al. – WIP control

USPN 5,768,133 A – Chen et al. – WIP control

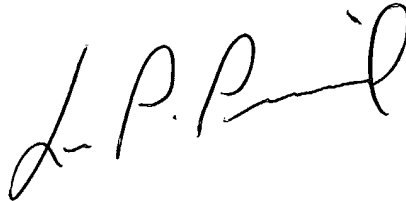
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elliot L Frank whose telephone number is (571) 272-3739. The examiner can normally be reached on M-F 8-5:00 (flex).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (571) 373-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ELF  
05 September 2004

A handwritten signature in black ink, appearing to read 'L. P. Picard', with a stylized flourish at the end.

LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100